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DEPARTMENT OF ENVIRONMENTAL PROTECTION

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December 8, 1993

Mr. Fred Evans
Project Manager, Code 1821
Department of the Navy, Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mailstop 82
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Dear Fred:

Clearly, from the conference call held on November 19, 1993, both the Navy and EPA support moving Site 9 into the Proposed Plan/Interim ROD phase for long-term groundwater monitoring. However, during our October 26, 1993 on-site meeting, you assured me that the Navy was not pursuing a ROD at that time, and was interested in conducting further investigations at the site. As we discussed in the conference call, the Department will not support an Interim ROD for this site, until we are satisfied that our concerns have been addressed or will be addressed through the Proposed Plan/Interim ROD.

The Department's primary concern at Site 9 is that no source has been identified for the vinyl chloride detected both north and south of Neptune Drive. Vinyl chloride, 1,1-Dichloroethane, and 1,2-Dichloroethylene are most likely daughter products of a parent chlorinated solvent, possibly located upgradient of Site 9 or adsorbed into the soils at Site 9. It is the Department's position that additional work must be done at Site 9 to identify a source area. Specific recommendations are outlined below.

1. The Department recommends that all the existing monitoring wells at Site 9 be sampled immediately. All samples should be analyzed for all parameters. Selected monitoring wells upgradient of Site 9 should also be sampled. An improved groundwater sampling technique, like the "low-flow" method devised by Robert Puls, should be used for additional sampling, as vinyl chloride is very volatile and easily lost from the sample. More reproducible inorganic results are also obtained by using this method. I believe that Fort Devens in Massachusetts is using this technique and this

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method has also been accepted for use at Loring Air Force Base in Limestone, Maine. The Department is available to assist the Navy in implementing this technique.

2. Review all available aerial photographs from 1941 through 1955, including photos available through the military, to determine potential upgradient sources of VOCs.

3. Identify current and historic usage of all buildings within 2000 feet of Site 9 to determine potential sources of VOCs. A few sources that can be easily identified include the Motor Pool, the Exchange gas station, Auto Hobby Shop, and the flight line. Chlorinated solvents are known to be used on the flight line (Jordan, 1985) Investigations conducted at the gas station, located at the corner of Second street and Burbank, did not include sampling for chlorinated solvents. I suspect solvents have been used at the Motor Pool and Auto Hobby Shop. A thorough review of solvent usage at these and other buildings surrounding Site 9 must be completed. Based on the findings of this review, subsurface investigations may be required as part of this investigation.

4. Submit the package of information currently being compiled by the Navy addressing background inorganics concentrations, for review and approval of the Department.

5. Additional information in the upgradient direction is required to identify a new background location. The Department does not accept MW-916 as an appropriate background location. As stated in previous review comments, MW-916 is less than 20 feet from the delineated landfill boundary. Also, in light of new information regarding T-23, there is some fuel contamination within approximately 10 feet of MW-916. A 1.1' sample was retreived between 6' and 14' below land surface in MW-916. This sample is not sufficient to characterize the presence of fuel oil and/or landfill material.

6. The Department has stated its position on the application of Human Health AWQC in previous review comments. The Department would like to schedule a meeting or a conference call with the Navy to further discuss this issue. Has the Navy determined the effect of the application of Human Health AWQC.

7. The Navy must provide copies of all field notes and boring logs taken during the course of the Site 9 investigations. I received a faxed copy of the boring log for MW-916, but I am still missing the field log for MW-916.

8. A test pit investigation should be performed in the area near T-7. The TerraProbe at T-7 hit an obstruction at 10 feet, which was never identified. The drain pipe may still be in place at that location. The drain pipe may be providing a preferential pathway for contamination from an upgradient source. The test pits will confirm whether the 42" drainpipe has actually been removed. Are there any construction plans available for the 42" drain pipe?

9. Is LT-901 sampling groundwater from the drain pipe, the culvert, or groundwater seeping out of the bank? Groundwater monitoring points should be installed at LT-901 in order to intercept groundwater contributing to LT-901.

10. Based on referenced reports, Site 9 was reported to be in operation as a landfill from 1951 to approximately 1960. For awhile it was the main Air Station disposal area. According to personnel interviews, it was used before operations began at Site 1 and typically only one disposal site was used at any given time. There is a conflicting report that Site 9 was used from 1943 to 1946 and from 1951 to 1952.

We now know that the landfill contains both incinerated and non-incinerated waste. The waste includes ash from the incinerator, trash from early operations at the base, metal wastes from the metal shop, paint sludge's, and solvents from the metal shop and other areas of the base. Borings in the landfill indicate many different types of wastes; glass, paper, water with oily sheens, fuel soaked soils, hydrocarbon odors, trash, metal, bricks, etc., have been disposed there. It is the Department's position that the landfill must be better characterized. The Department makes the following recommendations for further investigations at the landfill:

A) Subsurface soil samples must be collected from within the landfill to determine the chemistry of the landfill material. TCLP tests must be performed on these samples.

B) Subsurface soil samples at MW-914 must be collected to analyze the fuel oil soaked material described in the field notes.

C.) Subsurface soil samples must be collected in the vicinity of T-23 and MW-916 . Samples are required to assess the petroleum contaminated soils in this area.

D.) Groundwater samples should be collected from within the landfill to determine the effectiveness of the existing monitoring well network. Groundwater sampling will also be used to determine the nature of the hydrocarbon sheen noted to be present during past subsurface investigations.

E.) Groundwater samples should be collected at deeper intervals in the vicinity of the existing monitoring wells.

F.) Please provide the reference in the IAS that states that the site history involved only sporadic dumping of very small quantities of solvents at Site 9 (Navy Response to TRC Comments, 11/30/93).

I am willing to meet with the Navy to discuss any of these comments. Please call me at 207-287-2651, if you have any questions or would like to arrange a meeting.

Sincerely,

Nancy Beardsley

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Project Manager, Federal Facilities Unit
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